

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A treatment apparatus, comprising:

a first hermetic chamber having a first opening;

~~a tube capable of inserting into the first opening, and the tube having a second opening on an end of the tube and a third opening on the tube, the end facing the first hermetic chamber;~~

a first hermetic door, placed outside the first hermetic chamber, capable of opening and closing the first opening, ~~the first hermetic door being positioned between the second opening and the third opening such that the first hermetic door is shielded from the first hermetic chamber by the tube when insertion of the tube into the first opening is completed;~~
[[and]]

a tube having a second opening on an end of the tube, a third opening, and an end facing the first hermetic chamber, capable of being inserted into the first opening, which shields the first hermetic door from the first hermetic chamber such that the first hermetic door is positioned between the second opening and the third opening when the tube is inserted into the first opening;

an exhaust system ~~that has~~ having an exhaust opening, the third opening of the tube being positioned opposed to the exhaust opening when the tube is inserted into the first opening, the exhaust system being configured to exhaust the first hermetic chamber via the second opening, [[and]] the third opening, and the exhaust opening when the tube is inserted into the first opening; and

a cooling section configured to cool the tube when the exhaust system exhausts the first hermetic chamber to perform condensation in the tube,

wherein the first hermetic door is disposed between the first opening and the cooling section.

2. (Canceled)

3. (Previously Presented) The treatment apparatus as set forth in claim 1, wherein the first hermetic chamber maintains a vacuum state when the first hermetic door is at a closing position, while the tube is allowed to be replaced.

4. (Previously Presented) The treatment apparatus as set forth in claim 1, the exhaust system exhausts the first hermetic chamber when the first hermetic door is at an opening position, and the exhausting system is isolated from the first hermetic chamber when the first hermetic door is at a closing position so that the tube is allowed to be replaced.

5. (Previously Presented) The treatment apparatus as set forth in claim 1, comprising:

a means for cooling the tube when the tube is inserted into the first opening.

6. (Previously Presented) The treatment apparatus as set forth in claim 1, further comprising:

a means for regulating a temperature in the first hermetic chamber when the first hermetic door is at an opening position and a closing position.

7. (Previously Presented) The treatment apparatus as set forth in claim 1, further comprising:

a means, placed along the inserting direction of the tube, for guiding an inserting operation of the tube.

8. (Previously Presented) The treatment apparatus as set forth in claim 1, wherein the first hermetic chamber has a plurality of the first openings, the plurality of the first openings are linearly arranged, and the tube and the first hermetic door are provided at each of the first openings.

9. (Previously Presented) The treatment apparatus as set forth in claim 1, wherein a plurality of the first hermetic chambers are linearly arranged, said plurality of the first hermetic chambers being portioned off by openable and closeable partitions.

10. (Previously Presented) The treatment apparatus as set forth in claim 1, further comprising:

a second hermetic chamber adjoining the first hermetic chamber with the first hermetic door therebetween, wherein the tube is inserted into the first opening of the first hermetic chamber from the second hermetic chamber.

11. (Previously Presented) The treatment apparatus as set forth in claim 10, wherein the exhaust system is connected to the first hermetic chamber via the second hermetic chamber.

12. (Previously Presented) The treatment apparatus as set forth in claim 11, wherein the third opening of the tube and the exhaust system are hermetically connected when the tube is inserted into the first opening of the first hermetic chamber.

13. (Previously Presented) The treatment apparatus as set forth in claim 10, further comprising:

a means for performing pressure regulation in a space between the tube and the second hermetic chamber so that a pressure in the space is higher than a pressure in the first hermetic chamber when the tube is inserted into the first opening of the first hermetic chamber.

14. (Previously Presented) The treatment apparatus as set forth in claim 10, further comprising:

a means for performing pressure regulation in the first hermetic chamber so that a pressure in the first hermetic chamber is lower than a pressure in a space between the tube and the second hermetic chamber and higher than a pressure in the tube when the tube is inserted into the first opening of the first hermetic chamber.

15. (Previously Presented) The treatment apparatus as set forth in claim 13, wherein the means for performing pressure regulation has a means for supplying a carrier gas to a space between the tube and the second hermetic chamber.

16. (Previously Presented) The treatment apparatus as set forth in claim 11, further comprising:

a filter means placed between the second hermetic chamber and the exhaust system.

17. (Original) The treatment apparatus as set forth in claim 16, wherein the filter means includes at least a wet filter.

18. (Previously Presented) The treatment apparatus as set forth in claim 10, wherein the tube is removable, and the second hermetic chamber has a second hermetic door that is hermetically openable and closeable for replacing the tube with a second tube.

19. (Previously Presented) The treatment apparatus as set forth in claim 10, further comprising:

a means for regulating a temperature in the second hermetic chamber.

20. (Previously Presented) The treatment apparatus as set forth in claim 10, further comprising:

a means for supplying a non-oxidizing gas to the second hermetic chamber.

21-36. (Canceled)

37. (Currently Amended) A treatment apparatus, comprising:

a first chamber having a first opening;

a second chamber adjoining the first chamber and having an exhaust opening configured to connect to an exhaust system;

~~a tube having an end with a second opening and a side with a third opening, the tube being movable between a first position in which the tube is outside of the first chamber and within the second chamber, and a second position in which the end of the tube is within the first opening of the first chamber; and~~

a door provided between the first chamber and the second chamber, the door being configured to open and close the first opening[[,]];

a tube having an end with a second opening and a side with a third opening, movable between a first position in which the tube is outside of the first chamber and within the second chamber and a second position in which the end of the tube is within the first opening of the first chamber, which ~~wherein the tube is configured to shield~~ shields the door from the first chamber such that the door is positioned between the second opening and the third opening when the tube is in the second position, the third opening of the tube being positioned opposed to the exhaust opening when the tube is in the second position; and

~~wherein the second chamber has an exhaust opening configured to connect to an exhaust system, the exhaust opening facing the third opening when the tube is in the second position~~ a cooling section configured to cool the tube when the exhaust system exhausts the first chamber to perform condensation in the tube,

wherein the door is disposed between the first opening and the cooling section.